Airspace Systems Education Cohort

2004 ASEC
APPLICATION PACKET

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Airspace Systems Education Cohort

Announcement

The NASA Ames Research Center invites motivated and creative educators of grades 3–8 to apply to become an elite member of a NASA peer–mentoring network, the Airspace Systems Education Cohort (ASEC). Educators selected for this opportunity will attend a 3-day institute at Ames Research Center, Moffett Field, CA in August 2005. This institute will engage participants in scientific inquiry at the leading edge of education and technology and prepare the educators to share their experiences with their students and colleagues. These mentors will work within the K–12 community to train other educators in the use of NASA's multimedia products that support math, science, and technology education—and to inspire the next generation of explorers as only NASA can.

Program Description

The ASEC is a train-the-trainer program that will assemble a cohort of 15 master educators from across the country. During a 3-day Summer Training Institute in August 2005, educators will acquire the content knowledge, experiences, and resources to become advocates for Airspace Systems Education, which is part of NASA's Aeronautics Mission Directorate. In the school year that follows, ASEC mentors will conduct classroom lessons with their own students and conduct professional development workshops for their K–12 colleagues featuring airspace systems educational tools developed by the NASA Ames Educational Technology Team. Current programs include:
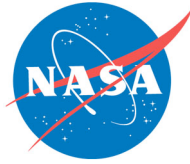
Robin WhirlyBird (K-4) http://rotored.arc.nasa.gov
Future Flight Design (4-8) http://futureflight.arc.nasa.gov
Virtual Skies (9-12) http://virtualskies.arc.nasa.gov

Additionally, ASEC teachers may participate in the development of new educational programs in Operational Concepts, Mars Airplane, and Aerospace Applications of Nanotechnology.

Eligibility

Applicants must meet the following requirements to be considered for the workshop:

- U.S. or Naturalized Citizen of the United States
- Employed as a full-time classroom teacher, administrator, or instructional specialist in math, science, or technology education.
- 3 years of classroom teaching experience
- Demonstrated ability and opportunity to conduct K–12 professional development workshops

Airspace Systems Education Cohort

Program Benefits

The Airspace Systems Educator Cohort participant receives many benefits, including:

- Expenses-paid participation in the 3-day Institute hosted at NASA Ames Research Center at Moffett Field, CA. Interact with program scientists, engineers, and associated educational programming in airspace systems, aeronautics, and nanotechnology. Tour world-class research laboratories and facilities on base.

- Continuing education graduate credit.

- Year-long access to materials such as NASA educator guides, stickers, posters, bookmarks, CD-ROMs, and lithographs for classroom and workshop distribution.

- Opportunities to pilot-test, review, and influence the development of NASA Ames Educational Technology Products.

- Press releases and media opportunities featuring participant and school/district.

- Membership to online community supporting mentors and teacher workshop development.

- Continued opportunities for mentor professional development during the school year. Allows mentors to stay current with NASA research, ASEC program goals, and AETT product development.

- Recognition as an ASEC Fellow upon completion of requirements.

- Nationwide networking opportunities.
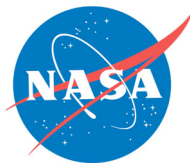
Airspace Systems Education Cohort

ASEC COHORT APPLICATION
Part 1 of 6

Applicant Information Form

Full Legal Name _____

Home Address _____

City _____   State _____   Zip _____

Primary Phone _____   Primary E-mail Address _____

Social Security No. (required for base access) _____   U.S. Citizen __Yes   __No

> Completion of this section is voluntary. This information is used to determine how well the program serves all segments of the diverse population.
>
> Gender __ Male   __ Female   Individual with Disabilities? __ Yes __ No
>
> Race__ African American   __ Hispanic   __ Asian American   __ Caucasian   __Alaska Native
>
> ___ Pacific Islander   __ Native American, Tribal Affiliation _____
>
> ___ Other _____

School Information Form

School Name _____

Address _____

City _____   State _____   Zip _____

School Phone _____   Fax _____   District _____

Principal's Name _____

School Type (Mark all that apply) __Public   __Private   __Urban   __Suburban   __Rural

Approximate Percentage of students in each category (school-wide):

_____% Hispanic   _____% Native American   _____% Pacific Islander   _____% African-American

_____% Receive free or reduced lunch   _____% Title 1   _____% English as a Second Language

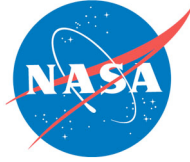Current School Year ends: Month _____   Day _____   Year _____

Grades and Subjects you currently teach _____

Current Position/Title (Mark all that apply) __Teacher   __Media Specialist   __Resource Teacher

__Curriculum Specialist   __ Other _____

Length of Current Position _____   Years Experience as Classroom Teacher _____

In your current position, how many students do you teach in one school year? _____

Airspace Systems Education Cohort

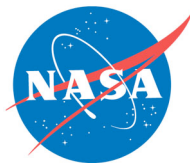## ASEC COHORT APPLICATION

Teaching Schedule

What opportunities do you have to share ASEC resources with students? Give an outline of your typical weekly teaching schedule and any extra-curricular activities you sponsor.

- **Elementary teachers:** Outline each subject you teach with the approximate number of hours allotted to each per week.

- **Middle and high school teachers:** List class periods with subjects or duties.

- **For educators outside the classroom:** Please give a general job description including % of time spent with students, teachers, and/or administrators, include other relevant duties.

ASEC COHORT APPLICATION
Part 3 of 6

Technology Resources

Much of ASEC content is online, web-based multimedia. Please answer the following questions about technology resources in your school.

1. Do you have computers for student use in your classroom? _____ Yes _____ No
    If Yes, how many? _____   Which platform? _____ Mac _____ PC
    Do any of these have Internet access? _____ Yes _____ No   If Yes, how many? _____
    Do any of these have CD-ROM drives? _____ Yes _____ No   If Yes, how many? _____

2. Do you have a teacher computer in your classroom? _____ Yes _____ No
    If Yes, is connected to an LCD projector or TV – just for your class? _____ Yes _____ No
    Does your school have a projector you can check out for your class? _____ Yes _____ No
    If Yes, on a scale of 1 (very easy) to 5 (almost impossible), how easy is it to get? _____

3. Does your school have a computer lab teachers can schedule for class use? _____ Yes _____ No
    If Yes, on a scale of 1 (very easy) to 5 (almost impossible), how easy is it to schedule? _____
    About how many times a year do you schedule the lab? _____
    How many computers are in this lab? _____   Which platform? _____ Mac _____ PC
    How many of these computers have an Internet connection? _____
    What kinds of activities do you schedule in the lab? _____

    _____

    _____

4. Does your school have someone in charge of the computer systems or labs? _____ Yes _____ No

    5. Other information you would like to share _____

    _____

    _____

   _____

    _____

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ASEC COHORT APPLICATION
Part 4 of 6

Essay Questions

Please answer all questions completely. Limit answers to the space provided. Use specific examples wherever possible.

1. a. Please describe any experience you have in leading other teachers in professional development. This may include giving an in-service, being a department chair, or working with your colleagues in a leadership role of some kind. Description should include, but is not limited to, the purpose, length, and audience of your presentation or role.

    b. Please describe any opportunities you may have in the next school year to provide professional development for fellow educators (annual or regional conferences, organizations you belong to, etc.).
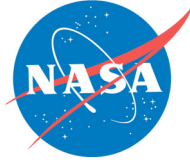
ASEC COHORT APPLICATION
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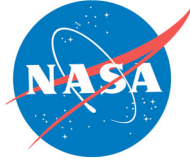
Essay Questions (continued)

2. Please share a "teaching with technology" success story. This might be a technology tool, technique, approach, event, lesson, or activity you find particularly effective in reaching students and/or parents.

ASEC COHORT APPLICATION
Part 6 of 6

Essay Questions (continued)

3. Outline a sample plan for conducting a half-day workshop for 20 middle school educators. You may choose your own topic or choose content from http://quest.arc.nasa.gov/. Include a plan for soliciting participants, workshop goals, a sample schedule, and any follow-up or evaluation you might implement.
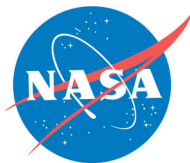
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Institutional Letter of Commitment

To be completed by Applicant's Principal or Supervisor

Your endorsement of this professional development opportunity for your employee is a key element to the effectiveness of the program. The NASA Ames Educational Technology Team is confident that you and the applicant will both find the experience an excellent investment of time, energy, and resources. Please read the agreement and sign below.

I have reviewed this application and believe that the Airspace Systems Education Cohort will be a beneficial training experience for this applicant and our district/service area. If this applicant is selected, our school/agency is willing to support him or her in:

- Implementing aeronautics-based instruction in the classroom,

- Conducting a 30-minute presentation during the 2005-2006 school year to our teaching community such as a staff meeting or department meeting,

- Providing release time with a substitute teacher for up to 3 days during the 2005-2006 school year for conducting professional development workshops

- Supplying year-round access to e-mail and the Internet, and

- Promoting the use of NASA's standards-based educational products within the district.

Name of Applicant (please print) _____
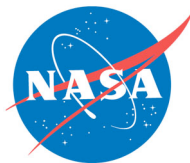
Name of Principal/Supervisor (please print) _____

Phone Number _____

I am authorized to make this commitment on behalf of my school district or agency.

_____   _____
Principal/Supervisor Signature   Date

Airspace Systems Education Cohort

Letter of Recommendation

To be completed by a Colleague, Administrator, Supervisor, Student, or Parent
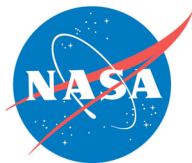
The Airspace Systems Education Cohort (ASEC) offers a unique opportunity for educators of grades 3-8 to become an elite member of a NASA mentoring cohort, whose mission is to inspire the next generation of explorers as only NASA can. This is a competitive program. We seek motivated and creative individuals. The ASEC will provide participants opportunities to experience scientific inquiry at the leading edge of technology. The three-day Summer Institute at NASA Ames Research Center will enable teachers to convey to their students and colleagues the excitement and relevance of NASA Aeronautics research, teach standards-based math, science and technology standards, and highlight careers in science.

In writing the letter of recommendation, please provide information concerning the applicant's **dedication to teaching, originality, and ability to lead curriculum and staff development and/or extracurricular science programs.**

Please do the following:
1. Put your recommendation in an envelope,

2. Seal and sign the back flap, and

3. **RETURN the sealed envelope TO THE APPLICANT**
   in time for his/her March 21, 2005 postmark deadline.

Thank you for taking the time to furnish this recommendation.

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Personal Letter of Commitment

To be completed by the Applicant

I, _____, am applying to become a member of the Airspace Systems Education Cohort. The information in my application is accurate to the best of my knowledge. I understand that this is a competitive process and if selected to participate in this program, I agree to commit myself, with the highest standards of my profession, to complete the following during the 2005-2006 school year:

- Full attendance and participation in the Summer Institute.

- Classroom use of one or more AETT products in its entirety.

- A 30-minute presentation to my teaching community, such as a staff meeting or department meeting.

- Active participation in the ASEC online community.

- Conducting one or more workshops featuring hands-on, in-depth training for 2+ hours to reach a minimum of 15 educators.

- Conducting one or more workshops at least 50 minutes in length to reach a minimum total of 60 teachers.

- Keeping program leaders up-to-date if there are any changes in my teaching assignment or contact information before I have completed my workshop commitments.

Name of Applicant (please print) _____

_____   _____

Applicant's Signature   Date
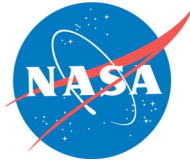
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PHOTOGRAPHY RELEASE FORM

I hereby grant to NASA Ames Research Center the irrevocable and unrestricted right to use and publish photographs of me, or in which I may be included, for publications, electronic reproductions (web sites) and/or promotional materials related to its educational activities and in any manner or medium. In addition, I grant my permission to alter the same without restriction, and to copyright the same.

I hereby release the NASA and its employees and contractors from all claims and liability relating to said photographs.
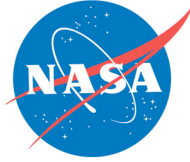
Name (please print) _____

_____   _____
Signature   Date

Address _____

City _____   State _____   Zip Code _____

Airspace Systems Education Cohort

APPLICATION PACKET CHECKLIST

A complete application contains the following documents:

☐ Application (Pages 3-8 of Application Packet)

☐ Institutional Letter of Commitment

☐ Sealed and Signed Letter of Recommendation

☐ Personal Letter of Commitment

☐ Photography Release Form

DEADLINE
All applications are to be postmarked on or before **March 21, 2005** and mailed to: **Alicia Baturoni** **NASA Ames Research Center** **Mail Stop 226-4** **Moffett Field, CA 94035-1000** *Late applications will not be considered.* Questions may be directed to: abaturoni@mail.arc.nasa.gov with "ASEC" in the subject line of the message.